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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,378	01/09/2001	James Brady	98-C-037C1	6527

7590 04/09/2003

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EXAMINER

LEE, BENNY T

ART UNIT	PAPER NUMBER
2817	

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
17	

DATE MAILED:

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined  Responsive to communication filed on 14 Jan 2003  This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1.  Notice of References Cited by Examiner, PTO-892. 2.  Notice re Patent Drawing, PTO-948.  
3.  Notice of Art Cited by Applicant, PTO-1449. 4.  Notice of Informal Patent Application, Form PTO-152  
5.  Information on How to Effect Drawing Changes, PTO-1474 6.

Part II SUMMARY OF ACTION

1.  Claims 1, 3-6, 9-11, 13, 14, 16-19, 21-28 are pending in the application.

Of the above, claims 21-26 are withdrawn from consideration.

2.  Claims \_\_\_\_\_ have been cancelled.

3.  Claims \_\_\_\_\_ are allowed.

4.  Claims 1, 3-6, 9, 10; 11, 13, 14, 16; 17-19 are rejected.

5.  Claims \_\_\_\_\_ are objected to.

6.  Claims 1, 3-6, 9-11, 13, 14, 16-19, 21-26 are subject to restriction or election requirement.

7.  This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.

8.  Allowable subject matter having been indicated, formal drawings are required in response to this Office action.

9.  The corrected or substitute drawings have been received on \_\_\_\_\_. These drawings are  acceptable;  
 not acceptable (see explanation).

10.  The  proposed drawing correction and/or the  proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_,  
has (have) been  approved by the examiner,  disapproved by the examiner (see explanation).

11.  The proposed drawing correction, filed \_\_\_\_\_, has been  approved,  disapproved (see explanation). However,  
the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are  
corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO  
EFFECT DRAWING CHANGES", PTO-1474.

12.  Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has  been received  not been received

been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13.  Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in  
accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14.  Other

EXAMINER'S ACTION

SN 757378

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A request for continued examination under 37 CAR 1.114, including the fee set forth in 37 CAR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CAR 1.114, and the fee set forth in 37 CAR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CAR 1.114. Applicant's submission filed on 14 January 2003 has been entered.

Newly submitted claims 21-26 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: These claims recite transmission lines connected by switches such as to function as independent transmission lines or interconnected transmission lines. Such an inventive concept patentably distinguishes from the claims of the originally examined invention in that the originally examined invention utilized no switches and the transmission lines thereof were interconnected in a manner distinct from that of the switched transmission line concept.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 21-26 are withdrawn from consideration as being directed to a non-elected invention. See 37 CAR 1.142(b) and MPEP § 821.03.

Claims 5, 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 5, for the sixth, seventh, eighth and ninth conductors, should these conductors be defined as being "located proximate" to and --being in the same plane-- as the second and third conductors, respectively rather than the first conductor? Clarification is needed.

The following claim has been found objectionable for reasons set forth below:

In claim 1, lines 8, 14; claim 5, line 3; claim 11, lines 8, 12: note that --to-- should follow "parallel" at each occurrence.

In claim 11, lines 7, 11, note that "a second area" should correctly be --the second area-- for proper antecedent basis.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3, 4, 8, 9, 10; 11, 13, 14, 16; 17, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent Abstract ('870) in view of the EP ('600) reference (both of record).

The Japanese Patent Abstract also discloses a main signal line (1) connected between a first or driver terminal (7) and a second opposite load terminal (8), where the first terminal includes a driver or source (4) attached to the main signal line. Note that sub-signal lines (2, 3) are disposed parallel to the main signal line (1) at opposite sides thereto. Moreover, note that first ends of the sub-signal lines (2, 3) are connected to the first terminal (7) in an area adjacent thereto. Furthermore, note that second opposite ends of the sub-signal lines are left unconnected adjacent the second terminal (8). In operation, note that the sub-signal lines (2, 3) provide for

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stray capacitances (9, 10) relative to the main line and whose capacitance value can be used to increase the propagation speed of signals in the main signal line and thus reduces propagation delays therein. Furthermore, note that the main signal line and the sub-signal lines are arranged in a planar arrangement. However, the Japanese Abstract differs from the claimed invention that the sub-signal lines (2, 3) are not arranged in a vertical or stacked configuration with the main signal line (1).

Note that Fig. 10 of the EP reference discloses a main transmission line conductor (TL) and auxiliary conductor (AL) disposed parallel to and in a vertical or stacked orientation relative to the main conductor (TL) as well as auxiliary conductors disposed in a planar arrangement with the main conductor. As is evident from fig. 9 the main conductor (TL) is connected at one end thereof to a source or driver (IT) and connected at a second opposite end to an internal or load circuit (10). Moreover, as is evident from fig. 9, the auxiliary circuits (AL), of which only one is depicted in Fig. 9, has a first end thereof connected at an area adjacent the source or driver while the second opposite end of the auxiliary conductor is left unconnected in a second area which is adjacent the internal circuit (10). In operation, it should be noted that the effect of the auxiliary conductors is to reduce stray capacitance between the main and auxiliary conductors, thereby reducing the propagation delay and thus increasing the speed of clock pulses on the main transmission line.

Accordingly, it would have been obvious in view of the references, taken as a whole to have physically realized the main line (1) and the sub-lines (2, 3) of the Japanese Abstract in a

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stacked or vertical configuration, as taught by Fig. 10 of the EP ('600) reference. Such a modification would have been considered an obvious substitution of art recognized equivalent main and sub-line configurations from the same field of endeavor, especially since the generic nature of the Japanese Abstract's configuration (i.e. the configuration can be of any orientation, e.g. horizontal, vertical, etc), thereby suggesting that any equivalent configuration (e.g. the vertical or stacked configuration of the EP reference) would have been usable therewith. Moreover, note that as an obvious consequence of the modification, the vertical or stacked configuration in the combination would obviously have included sub-lines which would have been above and below the main line such as to have been consistent with the teaching of the Japanese Abstract.

With respect to claims 10, 16, 19, although the dimensions of the metal conductors constituting the main transmission line/signal conductor and the sub-signal/auxiliary line conductor are unspecified, the selection of such dimension (i.e. to be about 1000 micron) would have been considered to have been a design optimization, whose value would have been within the purview of one of ordinary skill in the art, based on desired operating conditions, thereby suggesting the obviousness of such an optimization.

Applicant's arguments with respect to claims 1, 3-6, 9, 10; 11, 13, 14, 16; 17-19 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 308 4902.

*Benny Lee*  
BENNY T. LEE  
PRIMARY EXAMINER  
ART UNIT 2817